AMENDMENTS TO THE CLAIMS

Claim 1 (Original) A wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a buffer that stores packets of input traffic;

a packet transmission control section that fetches packets from the buffer, and, with top priority given to a semifixed initial path, distributes the packets to the initial path and to dynamically allocated additional paths;

a control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section; and

a wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths.

Claim 2 (Original) A wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a monitoring section that monitors packets of input traffic that are distributed, with top priority given to a semifixed initial path, to the initial path and to dynamically allocated additional paths;

a control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring; and

a wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths.

Claim 3 (Original) A wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a monitoring section that monitors packets of input traffic that are distributed, with top priority given to a semifixed initial path, to the initial path and to dynamically allocated additional paths;

a first control section that controls allocations of the additional paths based on distribution states of packet units obtained by the monitoring;

a first wavelength path switching section that switches wavelength paths in accordance with the allocation control of the additional paths by the first control section;

a buffer that stores packets of the input traffic;

a packet transmission control section that fetches packets from the buffer, and, with top priority given to the initial path, distributes the packets to the initial path and to the additional paths;

a second control section that controls allocations of the additional paths based on distribution states of packet units in the packet transmission control section; and

a second wavelength path switching device that switches wavelength paths in accordance with the allocation control of the additional paths by the second control section.

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Claim 4 (Original) The wavelength path switching node apparatus according to claim 1, wherein the packet transmission control section distributes packets to the additional paths in accordance with a predetermined order of priority.

Claim 5 (Original) The wavelength path switching node apparatus according to claim 3, wherein the packet transmission control section distributes packets to the additional paths in accordance with a predetermined order of priority.

Claim 6 (Original) The wavelength path switching node apparatus according to claim 1, wherein the control section allocates at least one reserve additional path when packets are being distributed.

Claim 7 (Original) The wavelength path switching node apparatus according to claim 2, wherein the control section allocates at least one reserve additional path when packets are being distributed.

Claim 8 (Original) The wavelength path switching node apparatus according to claim 3, wherein the control section allocates at least one reserve additional path when packets are being distributed.

Claim 9 (Original) The wavelength path switching node apparatus according to claim 4, wherein the control section allocates at least one reserve additional path when packets are being distributed.

Claim 10 (Original) The wavelength path switching node apparatus according to claim 5, wherein the control section allocates at least one reserve additional path when packets are being distributed.

Claim 11 (Original) A wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a step in which packets of input traffic are stored in a buffer;

a packet distributing step in which packets are fetched from the buffer, and, with top priority given to a semifixed initial path, the packets are distributed to the initial path and to dynamically allocated additional paths; and

a step in which allocations of the additional paths are controlled based on distribution states of packet units in the packet distributing step.

Claim 12 (Currently Amended) A wavelength path allocation method for a wavelength path switching node apparatus that is used in an optical communication network that performs multiplex transmissions by allocating a plurality of traffic items to a plurality of wavelength paths using a wavelength division multiplexing transmission scheme, comprising:

a step ~~in~~ of monitoring ~~which~~ packets of input traffic that are distributed, with top priority given to a semifixed initial path, to the initial path and to dynamically allocated additional paths ~~are monitored~~; and

a step ~~in which~~ of controlling allocations of the additional paths ~~are controlled~~

based on distribution states of packet units obtained by the monitoring.

Claim 13 (Currently Amended) A wavelength path allocation method for a

wavelength path switching node apparatus that is used in an optical communication

network that performs multiplex transmissions by allocating a plurality of traffic items to

a plurality of wavelength paths using a wavelength division multiplexing transmission

scheme, comprising:

a step ~~in~~ of monitoring ~~which~~ packets of input traffic that are distributed, with top

priority given to a semifixed initial path, to the initial path and to dynamically allocated

additional paths ~~are monitored~~;

a first control step in which allocations of the additional paths in a first

wavelength path switching section are controlled based on distribution states of packet

units obtained by the monitoring;

a step in which packets of input traffic are stored in a buffer;

a packet distributing step in which packets are fetched from the buffer, and, with

top priority given to the initial path, the packets are distributed to the initial path and to

the additional paths; and

a second control step in which allocations of the additional paths in a second

wavelength path switching section are controlled based on distribution states of packet

units in the packet distributing step.

Claim 14 (Original) The wavelength path allocation method according to claim

11, wherein, in the packet distributing step, the packets are distributed to the additional

paths in accordance with a predetermined order of priority.

Claim 15 (Original) The wavelength path allocation method according to claim

13, wherein, in the packet distributing step, the packets are distributed to the additional

paths in accordance with a predetermined order of priority.

Claim 16 (Original) The wavelength path allocation method according to claim

11, wherein, in the control step, at least one reserve additional path is allocated when

packets are being distributed.

Claim 17 (Original) The wavelength path allocation method according to claim

12, wherein, in the control step, at least one reserve additional path is allocated when

packets are being distributed.

Claim 18 (Original) The wavelength path allocation method according to claim

13, wherein, in the control step, at least one reserve additional path is allocated when

packets are being distributed.

Claim 19 (Original) The wavelength path allocation method according to claim

14, wherein, in the control step, at least one reserve additional path is allocated when

packets are being distributed.

Claim 20 (Original) The wavelength path allocation method according to claim

15, wherein, in the control step, at least one reserve additional path is allocated when

packets are being distributed.